

In the Claims:

1.-15. (Cancelled)

16. (Currently Amended) A power converter couplable to a source of electrical power adapted to provide an input voltage thereto, comprising:

a power train including a switch, referenced to said input voltage and subject to a control voltage limit, configured to conduct for a duty cycle and provide a regulated output characteristic at an output of said power converter;

a controller configured to provide a signal to control said duty cycle of said switch; and

a driver including switching circuitry referenced to a voltage level different from said input voltage and configured to provide a drive signal for said switch within said control voltage limit as a function of said signal from said controller, said switching circuitry including a first pair of series-coupled driver switches of opposite polarity having a first common node therebetween, a control terminal of one of said driver switches of said first pair of series-coupled driver switches cross coupled through a clamp driver switch to a second common node between a second pair of series-coupled driver switches of opposite polarity, and a control terminal of one of said driver switches of said second pair of series-coupled driver switches cross coupled through another clamp driver switch to said first common node.

17. (Original) The power converter as recited in Claim 16 wherein said controller is configured to provide a complement of said signal to control said duty cycle of said switch, said driver being configured to provide said drive signal for said switch within said control voltage limit as a function of said complement of said signal from said controller.

18. (Original) The power converter as recited in Claim 16 wherein said switch is a metal oxide semiconductor field effect transistor (MOSFET) referenced to said input voltage, said switching circuitry configured to provide a gate drive signal for said switch within a gate voltage limit thereof.

19. (Previously Presented) The power converter as recited in Claim 16 wherein said switching circuitry is couplable to said source of electrical power and a bias voltage source for providing a bias voltage, said first and second pair of series-coupled driver switches cooperating to provide said drive signal referenced to said input voltage and within said control voltage limit of said switch.

20. (Previously Presented) The power converter as recited in Claim 16 wherein said switching circuitry enables a mode of operation wherein said drive signal for said switch is referenced to said voltage level.

21.-23. (Cancelled)

24. (Previously Presented) The power converter as recited in Claim 16 wherein a voltage of said drive signal is less than said input voltage.

25. (Currently Amended) A method of operating a power converter couplable to a source of electrical power adapted to provide an input voltage thereto, comprising:

controlling a power train including a switch, referenced to said input voltage and subject to a control voltage limit, to conduct for a duty cycle and provide a regulated output characteristic at an output of said power converter;

providing a signal to control said duty cycle of said switch; and

providing a drive signal for said switch within said control voltage limit as a function of said signal with a driver including switching circuitry referenced to a voltage level different from said input voltage, said switching circuitry including a first pair of series-coupled driver switches of opposite polarity having a first common node therebetween, a control terminal of one of said driver switches of said first pair of series-coupled driver switches cross coupled through a clamp driver switch to a second common node between a second pair of series-coupled driver switches of opposite polarity, and a control terminal of one of said driver switches of said second pair of series-coupled driver switches cross coupled through another clamp driver switch to said first common node.

26. (Previously Presented) The method as recited in Claim 25, further comprising:
providing a complement of said signal to control said duty cycle of said switch; and
providing said drive signal for said switch within said control voltage limit as a function of said complement of said signal.

27. (Previously Presented) The method as recited in Claim 25 wherein said switch is a metal oxide semiconductor field effect transistor (MOSFET) referenced to said input voltage, said drive signal being a gate drive signal within a gate voltage limit thereof.

28. (Previously Presented) The method as recited in Claim 25 wherein said switching circuitry is couplable to said source of electrical power and a bias voltage source for providing a bias voltage, said first and second pair of series-coupled driver switches cooperating to provide said drive signal referenced to said input voltage and within said control voltage limit of said switch.

29. (Previously Presented) The method as recited in Claim 25 further comprising enabling a mode of operation wherein said drive signal for said switch is referenced to said voltage level.

30. (Previously Presented) The method as recited in Claim 25 wherein a voltage of said drive signal is less than said input voltage.

31. (Currently Amended) The power converter as recited in Claim 16 wherein said ~~first common node between said first pair of series-coupled driver switches is connected through a clamp driver switch to a control terminal of one of said driver switches of said second pair of series-coupled driver switches, and said second common node between said second pair of series-coupled driver switches being connected through another clamp driver switch to a control terminal of one of said driver switches of said first pair of series-coupled driver switches~~switching circuitry is referenced to a ground potential and said input voltage is about five volts.

32. (Currently Amended) The power converter as recited in Claim ~~[[31]]~~16 further comprising a clamp disabling driver switch coupled to said clamp driver switch and another clamp disabling driver switch coupled to said another clamp driver switch configured to disable a clamping operation associated therewith.

33. (Previously Presented) The power converter as recited in Claim 32 wherein said clamp disabling driver switch and said another clamp driver switch are parallel coupled to said clamp driver switch and said another clamp driver switch, respectively.

34. (Previously Presented) The power converter as recited in Claim 16 wherein a control terminal of one of said driver switches of said first pair of series-coupled driver switches is configured to receive said signal from said controller and a control terminal of one of said driver switches of said second pair of series-coupled driver switches is configured to receive a complement of said signal from said controller, said drive signal configured to be produced at a control terminal of another driver switch of said second pair of series-coupled driver switches.

35. (Currently Amended) The method as recited in Claim 25 wherein said ~~first common node between said first pair of series-coupled driver switches is connected through a clamp driver switch to a control terminal of one of said driver switches of said second pair of series-coupled driver switches, and said second common node between said second pair of series-coupled driver switches being connected through another clamp driver switch to a control terminal of one of said driver switches of said first pair of series-coupled driver switches~~switching circuitry is referenced to a ground potential and said input voltage is about five volts.

36. (Currently Amended) The method as recited in Claim ~~[[35]]~~25 further comprising disabling a clamping operation associated with said clamp driver switch and said another clamp driver switch.

37. (Previously Presented) The method as recited in Claim 36 wherein said disabling is performed at least in part by a clamp disabling driver switch parallel coupled to said clamp driver switch and another clamp disabling driver switch parallel coupled to said another clamp driver switch.

38. (Previously Presented) The method as recited in Claim 25 wherein a control terminal of one of said driver switches of said first pair of series-coupled driver switches receives said signal from said controller and a control terminal of one of said driver switches of said second pair of series-coupled driver switches receives a complement of said signal from said controller, said drive signal being produced at a control terminal of another driver switch of said second pair of series-coupled driver switches.